

**UCRL-JC-125181 Abs**  
**Model-Simulated Natural Climate Variability**

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Recent studies have concluded that a signal of human-produced global warming is emerging in the observed record. The inferred signal/noise ratio, however, depends on model estimates of natural variability "noise." A systematic examination of these models therefore seems warranted. CMIP, the Coupled Model Intercomparison Project established by the World Climate Research Program in 1995, is compiling (among other things) a data base suitable for such a study.

To date, we have obtained model output from 17 groups distributed among 7 nations. A preliminary look at the model-simulated variability of surface air temperature reveals several noteworthy features. For the shortest time scale examined, the seasonal cycle, the models agree fairly well with observations. This is a nontrivial result, since about half the models examined refrain from using flux correction to move their results closer to observations. For multi-year time scales, however, the model-simulated variability is typically less than observed. At the longest (centennial) time scales, observations are scarce, but the models seem to agree well with each other.

We are planning additional diagnosis of the model simulations, and a comparison of model output with high-resolution paleodata.

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2. 14408701

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4. U

5a) U08 Detection of  
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5b) 1610 Atmosphere  
1620 Climate  
Dynamics  
3309 Climatology

5c) Climate and Global  
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6. Oral

7.

8. 25 % at Workshop on  
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9. Attached PO#

10. C

11. None

12. No

13. No